Speaker:Yan, MinTitle:Set-theoretical Yang-Baxter equation and the corresponding knot invariantAuthors:Min Yan, Jiang-Hua Lu, Yong-Chang ZhuAffiliations:Hong Kong U of Sci and Tech, U of Arizona

*Abstract:* We give a general construction of solutions for the set-theoretical Yang-Baxter equation. The construction generalizes the known constructions and includes essentially all the solutions. It is based on the classification of positive Hopf algebras and the quasi-triangular structures on such algebras. The Hopf algebra background enables us to conclude that the braid representations induced by set-theoretical solutions are essentially equivalent to those of the conjugate types.